



COMMONWEALTH of VIRGINIA

Permit No. VA0077828
Effective Date: *pending*
Expiration Date: *pending*

**AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND
THE VIRGINIA STATE WATER CONTROL LAW**

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II, as set forth herein.

Owner: Coeburn-Norton-Wise Reg. WWTA
Facility Name: Coeburn-Norton-Wise Reg. WWTP
County: Wise
Facility Location: 11550 Pine Camp Road, (St. Rt. 699) Coeburn

The owner is authorized to discharge to the following receiving stream:

Stream: Guest River
River Basin: Tennessee-Big Sandy River
River Subbasin: Clinch River
Section: 2
Class: IV
Special Standards: None

Regional Director, Department of Environmental Quality

Date

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, or until the issuance of the Certificate to Operate (CTO) for the expansion of the wastewater treatment plant from 5.0 MGD to 6.5 MGD or 7.0 MGD, the permittee is authorized to discharge from outfall serial number 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATION		MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	Totalizing, Indicating, & Recording
pH (standard units)	NA	NA	6.0	9.0	1/Day	Grab
CBOD ₅ ^{d, e} June-Nov	16 mg/l	300 kg/d	24 mg/l	450 kg/d	3 Days/Week	24 Hour Composite
CBOD ₅ ^{d, e} Dec-May	20 mg/l	380 kg/d	30 mg/l	580 kg/d	3 Days/Week	24 Hour Composite
Suspended Solids ^{d, e}	24 mg/l	450 kg/d	36 mg/l	680 kg/d	3 Days/Week	24 Hour Comp
Ammonia Nitrogen ^{d, f} June-Nov	1.8 mg/l	2.4 mg/l	NA	NA	3 Days/Week	24 Hour Comp
Ammonia Nitrogen ^{d, f} Dec-May	4.0 mg/l	5.4 mg/l	NA	NA	3 Days/Week	24 Hour Comp
Ecoli ^g	126 N/100ml	NA	NA	NA	4/Month (1/Week)	Grab
Total Residual Chlorine (TRC) ^{c, d}	0.0089 mg/l	0.0094 mg/l	NA	NA	1 /2 Hrs	Grab
Dissolved Oxygen	NA	NA	7.0 mg/l	NA	1/Day	Grab
NL = No Limitation, monitoring required NA = Not Applicable						

NL = No Limitation, monitoring required
NA = Not Applicable

- a. The design flow of this treatment facility is 5.0 MGD
- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- c. See Part I. B. for Additional TRC Limitations and Monitoring Requirements.
- d. See Part I. C. 11. for Compliance Reporting requirements.
- e. At least 85% removal for CBOD₅ Total Suspended Solids must be attained for this effluent.
- f. See Part I. C. 14. for Compliance Schedule and Interim Effluent Limitations and Monitoring Requirements.
- g. Sampling shall be conducted between the hours of 10:00 am and 4:00 pm. Results shall be expressed as a geometric mean.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Upon issuance of a Certificate to Operate (CTO) for the expansion of the wastewater treatment plant to 6.5 MGD, the following effluent limitations and design flow shall become effective and remain in effect for outfall 001 until the permit's expiration date.
Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS			DISCHARGE LIMITATION		MONITORING REQUIREMENT	
	Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	Totalizing, Indicating & Recording
pH (standard units)	NA	NA	6.0	9.0	1/Day	Grab
CBOD ₅ ^{d, e} June-Nov	12 mg/l	300 kg/d	NA	NA	5 Days/Week	24 Hour Composite
CBOD ₅ ^{d, e} Dec-May	15 mg/l	380 kg/d	NA	NA	5 Days/Week	24 Hour Composite
Suspended Solids ^{d, e}	18 mg/l	450 kg/d	NA	NA	5 Days/Week	24 Hour Composite
Ammonia Nitrogen ^d June-Nov	1.6 mg/l	2.2 mg/l	NA	NA	5 Days/Week	24 Hour Composite
Ammonia Nitrogen ^d Dec-May	3.6 mg/l	4.8 mg/l	NA	NA	5 Days/Week	24 Hour Composite
Ecoli ^{f, g}	126 N/100ml	NA	NA	NA	4/Month (1/Week)	Grab
Total Residual Chlorine (TRC) ^{c, d}	0.0083 mg/l	0.0088 mg/l	NA	NA	1 /2 Hrs	Grab
Dissolved Oxygen	NA	NA	7.0 mg/l	NA	1/Day	Grab
NL = No Limitation, monitoring required NA = Not Applicable						

NL = No Limitation, monitoring required
NA = Not Applicable

- a. The design flow of this treatment facility is 6.5 MGD.
- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- c. See Part I. B. for Additional TRC Limitations and Monitoring Requirements.
- d. See Part I. C. 11. for Compliance Reporting requirements.
- e. At least 85% removal for CBOD₅ and Total Suspended Solids must be attained for this effluent.
- f. Sampling shall be conducted between the hours of 10:00 am and 4:00 pm while the instantaneous plant flow rate is equal to or less than 10 MGD. Results shall be expressed as a geometric mean.
- g. At any time instantaneous flows to the WWTP are greater than 10.0 MGD for a period of at least two hours, Ecoli monitoring is required once per day.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Upon issuance of a Certificate to Operate (CTO) for the expansion of the wastewater treatment plant to 7.0 MGD, the following effluent limitations and design flow shall become effective and remain in effect for outfall 001 until the permit's expiration date. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS			DISCHARGE LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	Totalizing, Indicating, & Recording
pH (standard units)	NA	NA	6.0	9.0	1/Day	Grab
CBOD ₅ ^{d,e} June-Nov	11 mg/l	300 kg/d	NA	NA	5 Days/Week	24 Hour Composite
CBOD ₅ ^{d,e} Dec-May	14 mg/l	380 kg/d	NA	NA	5 Days/Week	24 Hour Composite
Suspended Solids ^{d,e}	17 mg/l	450 kg/d	NA	NA	5 Days/Week	24 Hour Composite
Ammonia Nitrogen ^d June-Nov	1.6 mg/l	2.2 mg/l	NA	NA	5 Days/Week	24 Hour Composite
Ammonia Nitrogen ^d Dec-May	3.5 mg/l	4.7 mg/l	NA	NA	5 Days/Week	24 Hour Composite
Ecoli ^{f,g}	126 N/100ml	NA	NA	NA	4/Month (1/Week)	Grab
Total Residual Chlorine (TRC) ^{c,d}	0.0083 mg/l	0.0088 mg/l	NA	NA	1 /2 Hrs	Grab
Dissolved Oxygen	NA	NA	7.0 mg/l	NA	1/Day	Grab
NL = No Limitation, monitoring required NA = Not Applicable						

NL = No Limitation, monitoring required
NA = Not Applicable

- The design flow of this treatment facility is 7.0 MGD.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.
- See Part I. B. for Additional TRC Limitations and Monitoring Requirements.
- See Part I. C.11 for Compliance Reporting requirements.
- At least 85% removal for CBOD₅ and Total Suspended Solids must be attained for this effluent.
- Sampling shall be conducted between the hours of 10:00 am and 4:00 pm while the instantaneous plant flow rate is equal to or less than 10 MGD. Results shall be expressed as a geometric mean.
- At any time instantaneous flows to the WWTP are greater than 10.0 MGD for a period of at least two hours, Ecoli monitoring is required once per day.

A. CLASS B - SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to manage sewage sludge in accordance with 9VAC 25-31-10 et. seq. and 9VAC 25-32-10 et. seq. and as detailed in the approved Sludge Management Plan that consists of the Sewage Sludge Application and Attachments.

The pollutants in sewage sludge shall be limited and monitored by the permittee as specified below:

<u>Chemical Pollutant Limitations and Monitoring Requirements</u>		<u>MONITORING REQUIREMENT</u>	
<u>BIOSOLIDS CHARACTERISTICS</u>	<u>LIMITATIONS</u>	<u>Frequency^d</u>	<u>Sample Type</u>
	<u>Ceiling Concentration^{a,b,c}</u> <u>Maximum (mg/kg)</u>	<u>Monthly Average^{a,b}</u> <u>(mg/kg)</u>	
Total Arsenic [*]	75	41	See Footnote ^d Composite
Total Cadmium [*]	85	39	See Footnote ^d Composite
Total Copper [*]	4,300	1,500	See Footnote ^d Composite
Total Lead [*]	840	300	See Footnote ^d Composite
Total Mercury [*]	57	17	See Footnote ^d Composite
Total Molybdenum [*]	75	NA	See Footnote ^d Composite
Total Nickel [*]	420	420	See Footnote ^d Composite
Total Selenium [*]	100	100	See Footnote ^d Composite
Total Zinc [*]	7,500	2,800	See Footnote ^d Composite
TKN	NA	NL	See Footnote ^d Composite
Percent Solids	NA	NL	See Footnote ^d Composite
Ammonium Nitrogen	NA	NL	See Footnote ^d Composite
Nitrate Nitrogen	NA	NL	See Footnote ^d Composite
Total P	NA	NL	See Footnote ^d Composite
Total K	NA	NL	See Footnote ^d Composite
pH (Std Units)	NA	NL	See Footnote ^d Composite

A. CLASS B - SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

2. Chemical Pollutant Limitations and Monitoring Requirements (cont'd):

NL = No Limitation; monitoring required; NA = Not Applicable

* Metals are subject to cumulative pollutant loading rates (CPLRs). See "footnote c" below.

** Lime treated sludge (10% or more CaCO₃ by dry weight) should be analyzed for percent Calcium Carbonate Equivalence (CCE).

a. Dry weight basis, unless otherwise stated.

b. All samples shall be collected and analyzed in accordance with Title 40 Code of Federal Regulations Parts 503 and 136. The results of the biosolids monitoring specified above shall be submitted in accordance with the Biosolids Reporting Requirements, Part I E.28.

c. The maximum concentration shall be reported as the highest single result from sampling during a monitoring period. If the concentration of any single sample of biosolids exceeds the Ceiling Limit for any metal listed above, the biosolids shall not be land applied. If the concentration of any metal above exceeds the monthly average concentration but is less than the Ceiling concentration, the cumulative loading of the metals must be tracked. See Part I A.3.

d. The frequency of analysis for biosolids shall be as follows:

Amount of dried biosolids ¹ (metric tons per 365 day period)	Frequency
Less than 290	Once per year.
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year).
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year).
Equal to or greater than 15,000	Once per month (12 times per year).

¹Either the amount of finished biosolids applied to the land, prepared for sale, or give-away for application to the land (dry weight basis).

e. Annual Sludge Production Data: (SPI) - In accordance with Part I E.28.d. the permittee shall report the annual total amount of sludge produced, in dry metric tons, by the facility and annual amount of sludge, in dry metric tons, used or disposed in various methods. The report is due by February 19 of each year.

f. Pathogen Reduction Limitations: Biosolids land applied in Virginia shall comply with one of the applicable Class B pathogen reduction alternatives specified in 9VAC25-31-710.A or B. The permittee shall identify the alternative used in the annual report and perform adequate monitoring and maintain adequate bench sheets to insure that sufficient pathogen reduction is achieved.

g. Vector Attraction Reduction Limitations: Biosolids land applied in Virginia shall comply with one of the applicable vector attraction reduction alternatives specified in 9VAC25-31-720.B1 – B10. The permittee shall identify the alternative used in the annual report and maintain adequate bench sheets to insure that sufficient vector attraction reduction is achieved.

A. CLASS B - SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

3. CLASS B BIOSOLIDS – If the concentration of any of these constituents in biosolids from any source exceeds the monthly average pollutant concentration in Part I.A.2., then the biosolids from the source are subject to CPLR rules and tracking (Part I.E.22 – 27) and the cumulative pollutant loading at each site shall be limited by the permittee as specified below:

<u>BIOSOLIDS CHARACTERISTICS</u> ^a		<u>LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
<u>Metal</u>	<u>(kg/ha)</u>	<u>Maximum Cumulative Pollutant Loading Rate</u> ^b	<u>(lb/Ac)</u>	<u>Frequency</u>	<u>Sample Type</u>
Total Arsenic	41		36	Each Application	Calculated
Total Cadmium	39		35	Each Application	Calculated
Total Copper	1,500		1,340	Each Application	Calculated
Total Lead	300		270	Each Application	Calculated
Total Mercury	17		16	Each Application	Calculated
Total Molybdenum	NA		NA	Each Application	Calculated
Total Nickel	420		375	Each Application	Calculated
Total Selenium	100		89	Each Application	Calculated
Total Zinc	2,800		2,500	Each Application	Calculated

NA = Not Applicable

- a. Constituents subject to CPLRs, PCs, and ceiling limits.

- b. No person shall apply bulk biosolids subject to the CPLRs identified above to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates identified above has been reached. The CPLR is the maximum cumulative application of trace elements that can be applied to soils used for crop production. The maximum cumulative application rate is limited for all ranges of cation exchange capacity due to soil background pH in Virginia of less than 6.5 SU and lack of regulatory controls of soil pH adjustment after biosolids application ceases.

A. CLASS B - SOIL MONITORING REQUIREMENTS

4. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to manage sewage sludge according to the approved Sludge Management Plan.

The pollutants in soil shall be monitored by the permittee as specified below:

<u>PARAMETERS</u>	<u>LIMITATIONS</u>	<u>MONITORING FREQUENCY</u>	<u>SAMPLE TYPE</u>
Soil pH (Std. Units)	NL	1/Application	Composite
Cation Exchange Capacity (meq/100 g)	NL	1/Application	Composite
Available Phosphorous (mg/kg)	NL	1/Application	Composite
Exchangeable Potassium (mg/kg)	NL	1/Application	Composite
Exchangeable Magnesium (mg/kg)	NL	1/Application	Composite

NL = No Limitation, Monitoring required.

- Results of the soil monitoring specified above shall be used to develop the Nutrient Management Plan (NMP) in accordance with Part I.E.2. Submission of a separate monitoring report is not required.
- Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: All land application sites before sludge is reapplied.
- Soil composite samples shall be representative of the soil types delineated by the SCS Soil Survey (or the equivalent). Samples shall be taken at 0-6 inches soil depth for each land application sites. Soil testing used to develop a NMP must be conducted by a DCR approved laboratory in accordance with the Virginia Nutrient Management Standards and Criteria.
- Unless otherwise stated, all parameters are reported on a dry weight basis.
- Several partial applications may be utilized until the site is completely covered, with no additional monitoring being required.

A. CLASS A – MONITORING REQUIREMENTS AND LIMITATIONS

5. BIOSOLIDS DRYING FACILITY FINAL PRODUCT – During the period beginning with the issuance of a Certificate to Operate (CTO) for the biosolids drying facility and lasting until the permit's expiration date, the permittee is authorized to prepare and manage biosolids in accordance with 9VAC 25-31-10 et seq. and as detailed in the approved Operations and Maintenance manual.

The pollutants in the biosolids marketed and distributed under this permit shall be monitored and limited as specified below:

Pathogen Reduction Limitations: The biosolids distributed under this permit shall comply with one of the applicable Class A pathogen reduction alternatives specified in 9 VAC 25-31-710 and Title 40 Code of Federal Regulations Part 503.32. The permittee shall identify the alternative used in the annual report and provide the data that demonstrate compliance with the applicable alternative.

Vector Attraction Reduction Limitations: Biosolids land applied in Virginia shall comply with one of the applicable vector attraction reduction alternatives specified in 9 VAC 25-31-720. The permittee shall identify the alternative used in the annual report and provide the data that demonstrate compliance with the applicable alternative.

EQ BIOSOLIDS CHARACTERISTICS

MONITORING REQUIREMENT

LIMITATIONS ^{d, f}

<u>Parameter</u>	<u>PC/CPLR Criteria Monthly Average Concentration ^{a, g}</u>	<u>Monthly Average Concentration ^{a, g}</u>	<u>Ceiling Concentration Maximum ^{a, h}</u>	<u>Frequency ^e</u>	<u>Sample Type</u>
Salmonella (MPN/4g) or Fecal Coliforms (MPN/g)	NA	NA	<3	See Footnote ^e	Grab
Total Solids (%)	NA	NL	NA	See Footnote ^e	Composite
Volatile Solids (%)	NA	NL	NA	See Footnote ^e	Composite
Total Arsenic (mg/kg) ^b	41	41	75	See Footnote ^e	Composite
Total Cadmium (mg/kg) ^b	39	39	85	See Footnote ^e	Composite
Total Copper (mg/kg) ^b	1,500	1,500	4,300	See Footnote ^e	Composite
Total Lead (mg/kg) ^b	300	300	840	See Footnote ^e	Composite
Total Mercury mg/kg ^b	17	17	57	See Footnote ^e	Composite
Total Molybdenum (mg/kg) ^b	NA	NA	75	See Footnote ^e	Composite
Total Nickel (mg/kg) ^b	420	420	420	See Footnote ^e	Composite
Total Selenium (mg/kg) ^b	100	100	100	See Footnote ^e	Composite
Total Zinc (mg/kg) ^b	2,800	2,800	7,500	See Footnote ^e	Composite
TKN (%)	NA	NL	NA	See Footnote ^e	Composite
Ammonia Nitrogen (%)	NA	NL	NA	See Footnote ^e	Composite
Total P (%)	NA	NL	NA	See Footnote ^e	Composite
Total K (%)	NA	NL	NA	See Footnote ^e	Composite
pH (S.U.)	NA	NA	NL	See Footnote ^e	Composite

A. CLASS A – MONITORING REQUIREMENTS AND LIMITATIONS (cont'd)

EQ BIOSOLIDS CHARACTERISTICS		LIMITATIONS ^c		MONITORING REQUIREMENT	
Parameter		Monthly Average ^{a,e,f,g}	Maximum ^{a,e,f}	Frequency	Sample Type
Polychlorinated biphenols (PCBs) (mg/kg)		NL	NL	See Footnote ^c	Composite
Aldrin/dieldrin (total) (mg/kg)		NL	NL	See Footnote ^c	Composite
Benzo (a) pyrene (mg/kg)		NL	NL	See Footnote ^c	Composite
Chlordane (mg/kg)		NL	NL	See Footnote ^c	Composite
DDT/DDE/EEE (total) (mg/kg) ^d		NL	NL	See Footnote ^c	Composite
Dimethylnitrosamine (mg/kg)		NL	NL	See Footnote ^c	Composite
Heptachlor (mg/kg)		NL	NL	See Footnote ^c	Composite
Hexachlorobenzene (mg/kg)		NL	NL	See Footnote ^c	Composite
Hexachlorobutadiene (mg/kg)		NL	NL	See Footnote ^c	Composite
Lindane (mg/kg)		NL	NL	See Footnote ^c	Composite
Toxaphene (mg/kg)		NL	NL	See Footnote ^c	Composite
Trichloroethylene (mg/kg)		NL	NL	See Footnote ^c	Composite
Aluminum (mg/kg)		NL	NL	See Footnote ^c	Composite
Boron, water soluble (mg/kg)		NL	NL	See Footnote ^c	Composite
Calcium (mg/kg)		NL	NL	See Footnote ^c	Composite
Chlorides (mg/kg)		NL	NL	See Footnote ^c	Composite
Manganese (mg/kg)		NL	NL	See Footnote ^c	Composite
Total Sulfur (mg/kg)		NL	NL	See Footnote ^c	Composite

NL = No limitations, monitoring is required NA = Not Applicable

- a. Dry weight basis, unless otherwise stated.
- b. Constituents subject to pollutant concentrations (PC) and ceiling limits. The biosolids marketed and distributed under this permit shall have concentrations of these constituents less than or equal to the monthly average and maximum limitations specified above.
- c. The frequency of analysis for biosolids shall be as follows:

Amount of dried biosolids ¹ (metric tons per 365 day period)	Frequency
Less than 290	Once per year.
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year).
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year).
Equal to or greater than 15,000	Once per month (12 times per year).

¹Either the amount of finished biosolids applied to the land, prepared for sale, or give-away for application to the land (dry weight basis).

- d. DDT = 2,2--Bis (chlorophenyl)--1,1,1--Trichloroethane; DDE = 1,1--Bis (chlorophenyl)--2,2--Dichloroethane; DDD = 1,1--Bis (chlorophenyl)--2,2--Dichloroethane
- e. All samples shall be collected and analyzed in accordance with Title 40 Code of Federal Regulations Parts 503 and 136.
- f. The results of the biosolids monitoring specified in Part A.5. shall be submitted in the annual report (Part I.F.13.c). The report shall include a certification statement signed in accordance with Part II.K.
- g. Monthly average shall be reported as the average of the results of all samples collected within a calendar month and analyzed using an approved method. For monitoring periods which include multiple months, if one sample is collected during the monitoring period, that result shall be reported as the monthly average. If samples are collected in different months during the monitoring period, each monthly average shall be calculated and the highest monthly average reported. Individual results and calculations shall be submitted with the report. If the monthly average concentration of the biosolids exceeds the PC limit for any parameter subject to PC limits, the biosolids shall not be distributed.
- h. The maximum concentration shall be reported as the highest single result from sampling during a monitoring period. If the concentration of any single sample of biosolids exceeds the Ceiling Limit for any parameter subject to Ceiling Limits, the biosolids shall not be distributed.

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

1. Beginning with the permit's effective date, and lasting until the expiration date, or until the issuance of the Certificate to Operate for the expansion of the WWTP from 5.0 MGD to 6.5 MGD or 7.0 MGD, the following shall apply:
 - a. If chlorine is chosen as a disinfection method, TRC shall be limited and monitored by the permittee as specified below:
 - (1) The permittee shall monitor the TRC at the outlet of the chlorine contact tanks at a frequency of once every 2 hours by grab sample.
 - (2) No more than thirty-six (36) of all samples taken at the outlet of the chlorine contact tanks shall be less than 1.0 mg/l for any one calendar month.
 - (3) No TRC sample collected at the outlet of the chlorine contact tanks shall be less than 0.60 mg/l.
 - (4) The samples above shall be collected prior to dechlorination.
 - b. If chlorine disinfection is not used, E. coli shall be limited and monitored by the permittee as specified below and this requirement, if applicable, shall substitute for the TRC and E.coli requirements delineated elsewhere in Part I of this permit.

	<u>Discharge Limitations</u>	<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Frequency</u>	<u>Sample Type</u>
E.coli	126n/100* ml *Monthly Geometric Mean	1/Day	Grab Between 10 AM & 4 PM

2. Upon issuance of a Certificate to Operate (CTO) the 6.5 MGD or 7.0 MGD WWTP, and lasting until the expiration date of the permit, the following shall apply:
 - a. The following improvements, as described in the permit application, shall be made to enhance the disinfection process prior to issuance of the CTO:
 - (1) Provide filtration through a cloth media disc prior to disinfection.
 - (2) Relocate the chlorine injection point to the 42-inch outlet at the proposed filter building.
 - (3) Construct additional baffling within the chlorine contact tanks.
 - (4) Install continuous chlorine residual analyzers and a control system that includes alarms to monitor the disinfection process.
 - b. Utilizing chlorine as a disinfection method, Total Residual Chlorine (TRC) shall be limited and monitored by the permittee as specified below:
 - (1) When instantaneous flows through the WWTP are equal to or less than 10 MGD the following shall apply:
 - (a) The permittee shall monitor the TRC at the outlet of each operating chlorine contact tank, at a frequency of once every 2 hours by grab sample.
 - (b) The samples above shall be collected prior to dechlorination.
 - (c) Except as provided in Part I.B.2.(3), the minimum TRC at the outlet of each operating chlorine contact tank shall be 1.0 mg/l.

- (c) No TRC sample collected at each outlet of the chlorine contact tank shall be less than 0.60 mg/l.
- (2) When instantaneous flows through the WWTP are greater than 10 MGD the following shall apply:
- (a) The permittee shall monitor the TRC at the outlet of the chlorine contact tanks at a frequency of once every 2 hours by grab sample.
 - (b) The samples above shall be collected prior to dechlorination.
 - (c) The outlet of the chlorine contact tanks shall be limited and controlled by the product of chlorine concentration and disinfectant contact time (CT): where C shall be the total chlorine residual (mg/l) measured at the effluent of the chlorine contact tank, and T shall be the theoretical disinfectant contact time computed as the volume of the chlorine contact tank divided by the instantaneous flow rate through that volume ($T=V/Q$).
 - (d) Except as provided in Part I.B.2.(3), for each sample, the minimum calculated CT value at the outlet of the chlorine contact tanks shall be 20 mg-min/l.
 - (e) No sample shall have a calculated CT value less than 12 mg-min/l at any time.
 - (f) Bacteria shall be monitored once per day, each day flows through the WWTP are greater than 10 MGD for a period of at least two hours.
- (3) No more than 36 samples required under Part I.B.2.b.(1) and (2), taken after the chlorine contact tanks and prior to dechlorination, shall be less than 1.0 mg/l TRC or 20 min- mg/l CT, for any calendar month.
- (4) The permittee shall conduct a study that evaluates the CT disinfection process and submit it to DEQ.
- (a) By March 1, 2014, the permittee shall submit a plan for approval to study the effectiveness of the alternative CT approach versus the conventional approach to disinfection on bacteria, viruses, and cysts. The study may also address the effects of pH and temperature on disinfection. The study may employ the use of data from the literature, results from bench tests, or full-scale tests to satisfy the objectives of this part.
 - (b) The study and a report documenting the results of the study shall be completed by and submitted with the application for reissuance of this permit.
 - (c) During the periods that the study is being conducted at full-scale as specified in the approved plan, limitations specified in Part I.B. for chlorine and CT will not apply.
- (5) The CNW Regional WWTAA and the member jurisdictions shall develop and implement an infiltration and inflow (I/I) abatement plan as follows:
- (a) The CNW Regional WWTAA shall submit the I/I abatement plan and schedule to DEQ for approval by June 1, 2014.
 - (b) At a minimum the plan shall commit the expenditure of \$1.5 million to abate peak flows to the WWTP.
 - (c) The CNW Regional WWTAA shall submit progress reports annually, beginning with the June 2015 DMR, and lasting until the expiration date of the permit.

C. 1. 95% Capacity Reopener

A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Southwest Regional Office of the Virginia Department of Environmental Quality,

Water Division, 355-A Deadmore Street, Abingdon, VA 24210, when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the Southwest Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

2. Indirect Dischargers

The permittee shall provide adequate notice to the Department of the following:

- a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

3. CTC, CTO Requirement

The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the DEQ prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

4. Operation and Maintenance Manual Requirement

The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the treatment works that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31, and Sewage Collection and Treatment Regulations, 9VAC25-790.

The O&M manual and subsequent revisions shall include the manual effective date and meet Part II.K.2. and Part II.K.4., Signatory Requirements, of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M manual within 90 days of the effective date of the changes. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M Manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ Regional Office for review and approval.

This manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of effluent, storm water and sludge samples;
- b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters. List type and quantity of wastes, fluids, and pollutants (e.g. chemicals) stored at this facility;
- e. Discussion of treatment works design, treatment works operation, routine preventative maintenance of units within the treatment system, critical spare parts inventory and record keeping;
- f. A plan for the management and/or disposal of waste solids and residues;
- g. Hours of operation and staffing requirements for the plant to ensure the effective operation of the treatment works and maintain permit compliance;
- h. List of facility, local and state emergency contacts; and,
- i. Procedures for reporting and responding to any spills/overflows/ treatment works upsets.

The Manual shall be updated within 90 days of the effective date of the issuance of the Certificate to Operate (CTO) from the DEQ for the expansion and or upgrade of the WWTP.

5. Licensed Operator Requirement

The permittee shall employ or contract at least one Class I licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

6. Reliability Class

The permitted treatment works shall meet Reliability Class II.

7. Treatment Works Closure Plan

If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the Department a closure plan for the treatment works. The plan shall address liquid and sludge removal, odor control, measures, structure and pipe removal, steps to prevent unauthorized access, fill material, final grading and seeding. The plan should contain proposed dates for beginning and completion of the work. The DEQ and the Virginia Department of Health must approve the plan prior to implementation. The permittee shall sample once for each foot of drawdown, and when the discharge no longer meets permit limits, the discharge shall cease and the rest of the contents of the lagoon shall be pumped and hauled to another, permitted facility for treatment and disposal. The permittee may continue discharging until the effluent no longer meets the permit limits or the permit expires, whichever occurs first.

8. Water Quality Criteria Reopener

Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.

9. Total Maximum Daily Load (TMDL) Reopener

This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.

10. Water Quality Criteria Monitoring

The permittee shall monitor the effluent at outfall 001 for the substances noted in *Attachment A, "Water Quality Criteria Monitoring"* according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be initiated after the start of the third year from the permit's effective date. Using Attachment A as the reporting form, the data shall be submitted with the next application for reissuance which is due at least 180 days prior to the expiration date of this permit. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

11. Compliance Reporting

- a. The quantification levels (QL) shall be less than or equal to the following concentrations:

<u>Effluent Parameter</u>	<u>Quantification Level</u>
cBOD5	5.0 mg/l
TSS	1.0 mg/l
Chlorine	0.10 mg/l
Ammonia-N	0.20 mg/l

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained. The permittee shall use any method in accordance with Part II A of this permit.

- b. Monthly Average -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above), then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

Weekly Average -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above), then the weekly average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported weekly average concentration is <QL, then report "<QL" for the quantity. . Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the maximum weekly average of the calculated daily quantities.

Daily Maximum -- Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above), then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.

Single Datum - Any single datum required shall be reported as "<QL" if it is less than the QL used for the analysis (QL must be less than or equal to the QL listed in a. above). Otherwise the numerical value shall be reported.

- c. Significant Digits -- The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

12. Design of 6.5 MGD and 7.0 MGD Treatment Works

The proposed wastewater treatment plant shall employ a biological process for nitrification. This process shall be designed to fully nitrify during summertime conditions. The plant shall be operated to support optimal nitrification during cold weather conditions subject to temperature and kinetic limitations of the process.

13. Additional Bacteria Monitoring

Upon issuance of a Certificate to Operate (CTO) the 6.5 MGD or 7.0 MGD WWTP, and lasting until the

expiration date of the permit, the permittee shall conduct additional bacteria monitoring as require in Part I.A. to insure compliance with the bacteria standards. At any time flows through the WWTP exceed 10.0 MGD for a period of at least two hours; Ecoli monitoring is required once per day.

14. Compliance Schedule and Interim Effluent Limitations and Monitoring Requirements

- a. Compliance Schedule - The permittee shall achieve compliance with the Ammonia Nitrogen limitation in Part I.A. in accordance with the following schedule:

- | | |
|---|--|
| (1) Submit Progress Reports | Annually, from the effective date of the permit, to be submitted with the June DMR, and lasting until the issuance of the CTO for the 6.5 MGD facility or at the expiration date of the permit |
| (2) Achieve Compliance with Final Effluent Limitation | With the issuance of the CTO for the 6.5 MGD facility or at the expiration date of the permit |

- b. Interim Effluent Limitations and Monitoring Requirements – During the period beginning with the permit's effective date and lasting until the commencement of discharge from the 6.5 MGD facility or until the permit's expiration date, whichever occurs first, the permittee is authorized to discharge from outfall 001. This discharge shall be limited and monitored as specified below:

	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Frequency</u>	<u>Sample Type</u>
Ammonia Nitrogen (Jun-Nov)	2.1 mg/l	2.8 mg/l	3 Days/Wk	24 Hour Composite
Ammonia Nitrogen (Dec-May)	8.3 mg/l	11 mg/l	3 Days/Wk	24 Hour Composite

D. Sludge Use and Disposal

- The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

The Sludge Management Plan, which consists of the VPDES Sewage Application Form and attachments, includes the following options:

- | | |
|-----------|---|
| Option 1: | Class B biosolids production - Land application |
| Option 2: | Class A biosolids production utilizing landfill methane gas to produce heat for drying sludge |
| Option 3: | Haul dewatered sludge to the Wise County Sanitary Landfill |

2. Sludge Reopener - The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

E. Class B Biosolids Production - Land application

1. Biosolids shall be applied only at the sites identified below:

<u>Site No.</u>	<u>Field Name</u>	<u>Acreage</u>
S18	Vanover Site (owned by Ben Russell)	7.2 acres
S19	Vanover Site (owned by Ben Russell)	40 acres
S20	Vanover Site (owned by Ben Russell)	28.46 acres
S21	Vanover Site (owned by Jimmy Vanover)	3.14

2. Nutrient Management Plan Requirement (NMP) - A NMP shall be developed for each land application site prior to biosolids application. A copy of the NMP shall be present at the land application site during land application operations and available for review by DEQ staff. A copy of the NMP shall be submitted to the DEQ Southwest Regional Office for review at least 30 days prior to land application on the site. Copies of the NMP shall also be provided to the farmer/operator of the site, the Department of Conservation and Recreation (DCR) regional office and the chief executive officer or designee for the local government, unless they request in writing not to receive the NMP. The NMP shall be enforceable through this permit.

The NMP shall be prepared and revised by a certified nutrient management planner as stipulated in regulations promulgated pursuant to §10.1-104.2 of the Code of Virginia. The NMP shall be written in accordance with the criteria stipulated in regulations promulgated pursuant to §10.1-104.2 of the Code of Virginia.

All NMPs shall account for all sources of nutrients to be applied to the site.

Where land application of biosolids is to be performed more frequently than once every three years at greater than 50% of the annual agronomic rate; or where the owner or lessee of the land application site is the operator of a confined animal feeding operation in accordance with §62.1-44.17:1 of the Code of Virginia; or where site-specific conditions demonstrate an increased risk to state waters as determined by DEQ, the permittee shall submit an NMP that has been approved by the DCR with a copy of the approval letter at the time of any permit modification requests to DEQ.

3. Loading Rates - Application rates shall be based on the annual average sludge quality. The average sludge quality shall be established from the results of approved analytical testing of composite samples obtained during the most recent 12 months of monitoring.

The permittee shall calculate biosolids loading rates based on the most rate limiting factor, specifically plant available nitrogen (PAN), phosphorus (as P₂O₅) or calcium carbonate equivalency (CCE); within the recommendations of the nutrient management plan for the application site and other limiting factors specified in Part I.E.9., Part I.E.10., and Part I.E.11.

However, for biosolids subject to the cumulative pollutant loading rate, the biosolids application shall be restricted by the metals content of the biosolids if the cumulative pollutant loading rate at the site is approached or if the ceiling limit of the biosolids is reached, unless the NMP specifies more restrictive biosolids application rates based on the nutrient content or CCE of the biosolids.

4. 14 Day Notification - The permittee shall provide written notification to the DEQ-Southwest Regional Office at least 14 days prior to commencing land application of biosolids at each permitted site. The notice shall contain the following information:
 - a. Permitted site identification;
 - b. Permitted site location, to include:
 - (1) County;
 - (2) Route number/road name; and
 - (3) Latitude/longitude coordinates in decimal degrees that represent a location within the boundaries of the site;
 - c. Approximate dates of application; and
 - d. Expected sources of biosolids.
5. Signage Requirements - At least 48 hours prior to the delivery of biosolids to each land application site, the permittee shall post a sign at the site notifying the public that biosolids will be applied. The sign shall be maintained at the site during the application and for at least 48 hours after the biosolids application has been completed.
 - a. The sign shall be visible and legible from the public road adjacent to the field, or the intersection of the public road and the main access road or driveway to the site. Upon the request of the permittee, the department may grant a waiver to this or any other signage requirement, or require alternative posting options due to extenuating circumstances.
 - b. The sign shall be weather-resistant and sturdy enough to remain in place and legible throughout the period that the sign is required at the site. The sign shall be at least four square feet in area and shall only contain the following information:
 - (1) A statement that biosolids are being land-applied at the site;
 - (2) The name and telephone number of the permit holder;
 - (3) The name or title, and telephone number of an individual designated by the permit holder to respond to complaints and inquiries; and
 - (4) Contact information for the DEQ-Southwest Regional Office, including a telephone number for complaints and inquiries.
6. 100 Day Notification to the Locality - At least 100 days prior to the first land application of biosolids at a site permitted under the VPDES Permit regulation, the permit holder shall provide written notification to the local government where the site is located. The notice shall identify the location of the permitted site and the expected sources of the biosolids to be applied to the site. This requirement may be satisfied by providing a list of all available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. If the site is located in more than one county or city, the notice shall be provided to all jurisdictions where the site is located.
7. Certified Land Applicator Requirement - The permittee shall ensure that no land application activities occur unless a certified land applicator (as specified in Article 5 of the VPA Permit Regulation 9VAC25-32 (Sections 690 through 760)) is onsite at all times during such land application. Certified land applicators may be considered to be onsite if they are at the site permitted for land application and, if it is necessary to leave the site, they are available within 30 minutes to return to the site to verify and ensure that land application of biosolids is in compliance with the permit.
8. Threatened or Endangered Species - Biosolids shall not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under Virginia Water Quality Standards

Regulation (9VAC25-260-00 et seq.) or Section 4 of the Endangered Species Act or if the land application is likely to adversely affect its designated critical habitat.

9. Infrequent Application - Land application sites receiving "infrequent" biosolids applications shall be managed in accordance with the following requirements:
 - a. Biosolids shall be applied on a once per three-year basis. None of the sites listed under Item 1.E.1., that previously received a complete application of biosolids, shall be used again until at least three years after the date of the last application. For the purposes of this special condition, a complete biosolids application shall be defined as the sum of all biosolids applications made within a 12 month period, regardless of whether or not the target level of nutrient addition was achieved. The soil sampling test results, in accordance with Part I.A.4., that are most recent, but not more than 3 years old, shall be included in the NMP before biosolids is reapplied to any field.
 - b. The rate of biosolids application shall never exceed 15 dry tons per acre per three years.
10. Frequent Application Below Agronomic Rate - Land application sites receiving "frequent, below agronomic rate" biosolids applications shall be managed in accordance with the following requirements:
 - a. The application of biosolids together with any other source of PAN shall not exceed 70% of the agronomic loading rate for the crops grown on each site. Records of the actual biosolids application rates should be retained on site for inspection during land application operations.
 - b. A maximum of 70% of the nitrogen requirement of the permanent pasture or hay crop can be applied on an annual basis. The 70% application rate shall be calculated after accounting for the previous two years' applied biosolids nitrogen mineralization rates.
 - c. A maximum of 50% of the nitrogen requirement of the permanent pasture or hay crop can be applied on an annual basis. It is not necessary to account for the previous two years' applied biosolids nitrogen mineralization rates under this option.
 - d. The rate of biosolids application shall never exceed 15 dry tons per acre per year.
11. Liquid Application Rate Limitation - At no time shall liquid biosolids (< 15% total solids) be surface applied at a hydraulic loading rate greater than 14,000 gal/ac (0.5 inches depth) in a single application procedure. Sufficient drying time shall be allowed between subsequent applications.
12. Operational Limitations During Periods of Inclement Weather –
 - a. Biosolids shall not be applied during times when the ground is saturated.
 - b. Surface application of biosolids shall not be made to cultivated or bare ground covered with ice; however, biosolids may be applied to snow covered ground if snow cover does not exceed an average depth of one inch and the snow and biosolids are immediately incorporated within 24 hours of application.
 - c. Biosolids may be applied to frozen ground only under the following conditions:
 - (1) Solids content of the biosolids is greater than 15%;
 - (2) Slopes are not greater than 5%;
 - (3) A minimum of a 200 foot vegetative (or at least 60% uniformly covered by stalks or other vegetation) buffer is maintained from all surface water courses;
 - (4) Only those soils characterized by the USDA as "well drained" are utilized; and

- (5) Stalks, vines, stubble or other vegetation or crop residue provides uniform soil coverage of at least 60% and is sufficient to prevent surface runoff.
13. Injection or Incorporation Requirement - Biosolids shall be direct injected or incorporated (mixed within the normal plow layer) within 48 hours if applied on sites with less than 60% uniform soil coverage by crop residue, stalks, vines, stubble, or other vegetation within any portion of the permitted site or if applied to areas subject to frequent flooding as defined by soil survey information.
14. Slope Restrictions - Biosolids shall not be applied to site slopes that exceed 15%.

During the period of November 16 to March 15 of the following year, when biosolids are applied to site slopes between 7% and 15%, one of the following best management practices (BMPs) shall be used to prevent runoff and soil loss:

- Biosolids shall be surface applied or subsurface injected beneath an established living crop such as hay, pasture, or timely planted small grain or cover crop;
- Biosolids shall be surface applied or subsurface injected so that immediately after application the crop residue still provides at least 60% soil surface coverage; or
- The site is operated in compliance with an existing soil conservation plan approved by the USDA Natural Resource Conservation Service and will remain in compliance after any subsequent tillage operation to incorporate the biosolids.

During the period of November 16 to March 15 of the following year, on site slopes between 5% and 7%, biosolids can be land applied using one of the following BMPs:

- Biosolids shall be surface applied or subsurface injected beneath an established living crop such as hay, pasture, or timely planted small grain or cover crop;
 - Biosolids can be land applied by surface application or subsurface injection followed by incorporation within 48 hours of application if crop residue still provides at least 30% soil surface coverage immediately following incorporation; or
 - Biosolids can be land applied by surface application or subsurface injection followed by ridge tilling or chisel plowing within 48 hours of application.
15. Buffer Zones - Land application of biosolids shall not occur within the following minimum buffer zones:

<u>Adjacent Features</u>	<u>Minimum Distance (feet) to Land Application Area</u>		
	<u>Surface Application ^(a)</u>	<u>Incorporation</u>	<u>Winter ^(b)</u>
Occupied dwellings ^(c)	200	200	200
Water supply wells and springs	100	100	100
Property lines ^(c)	100	50	100
Perennial streams and other surface waters except intermittent streams	50	35	100
Intermittent streams/drainage ditches	25	25	50

All improved roadways	10	5	10
Rock outcrops and sinkholes	25	25	25
Agricultural drainage ditches with slopes equal to or less than 2.0%	10	5	10

- a. Not plowed or disked to incorporate within 48 hours.
 - b. If surface application occurs on average site slopes between 7% and 15% during the time between November 16 of one year and March 15 of the following year.
 - c. Buffers may be reduced with the written consent of affected landowners and residents.
16. Transport Vehicles - All vehicles that transport biosolids shall be sufficiently sealed to prevent leaking and spillage of biosolids. Totally closed, water tight transport vehicles with rigid tops shall be provided for liquid biosolids to prevent spillage.
17. Soil pH and Cadmium - If the cadmium concentration of the biosolids is greater than 21 mg/kg, post application soil pH shall be 6.0 or greater. If the pre-application soil pH is below 6.0, pH adjustment may be required. The pre-application soil pH result at the time of application shall not be over 1 year old. Lime application shall be calculated taking into account the CCE of the biosolids at the proposed biosolids application site.
18. Landowner Consent and Notice - Valid landowner consent forms shall be maintained for all sites specified in Part I.E.1. of this permit. The permittee shall immediately notify the DEQ-Southwest Regional Office of any change in landowner agreement. The permittee shall provide the owner or leaseholder of the land on which the biosolids is applied notice and necessary information to comply with the requirements in this permit. Forms that may be used for providing this notice are included in the instructions for the sludge use and disposal application filed by the permittee.
19. Site Restrictions for Land Application of Class B Biosolids -
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids;
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remains on the land surface for four months or longer prior to incorporation into the soil;
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remains on the land surface for less than four months prior to incorporation into the soil;
 - d. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids;
 - e. Animals shall not be allowed to graze on the land for 30 days after application of biosolids;
 - f. Lactating dairy livestock shall not be allowed on sites within 60 days following biosolids application and green chopped forage from the site shall not be fed to milk cows if forage is removed within 60 days following biosolids application;
 - g. Turf grown on land where biosolids is applied shall not be harvested for one year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
 - h. Public access to land with a high potential for public exposure shall be restricted for one year after application of biosolids; and

- i. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.
20. Depth to Water Table - Biosolids shall not be land applied to soils where the water table is less than 18 inches. For all soils with a seasonal high water table of less than 18 inches, site specific soil borings shall be required prior to any land application during the months in which the water table is commonly high as defined by the NRCS (SCS) Soil Survey.

The soil borings shall be performed no more than 7 days prior to land application site activities and shall be conducted over the entire land application site area(s) restricted by the seasonal high water table. If, based on the soil borings in those areas, the water table is less than 18 inches, no biosolids shall be applied; if 18 inches or greater, application may occur at the permitted application rates. The signed soil boring logs shall be submitted with the monthly activity reports.
 21. Depth to Bedrock - Biosolids shall not be land applied to soils where the depth to bedrock is less than 18 inches. For all soils where the NRCS (SCS) Soil Survey predicts a depth to bedrock of less than 18 inches, site specific soil borings shall be required prior to any land application of biosolids. The soil borings shall be conducted over the entire land application site area(s) restricted by the shallow bedrock. If based on the soil borings in those areas, the soil depth is less than 18 inches, no biosolids shall be applied; if 18 inches or greater, biosolids may occur at the permitted application rates. The signed soil boring logs shall be submitted with the monthly activity reports.
 22. Restrictions for CPLR Biosolids Application - Biosolids subject to the cumulative pollutant loading rates CPLRs listed in Part I.A.3. shall not be applied to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates has been reached.
 23. Restrictions for CPLR Biosolids Application to Sites Previously Used - Before biosolids subject to the CPLRs listed in Part I.A.3. are applied to the land, the permittee shall contact the DEQ-Southwest Regional Office to determine whether biosolids subject to the cumulative pollutant loading rates have been applied since July 20, 1993.
 - a. If biosolids subject to the cumulative amount for each pollutant listed in Part I.A.3. have not been applied since July 20, 1993, the cumulative amount for each pollutant may be applied to the site in accordance with the cumulative loading limits listed in Part I.A.3.
 - b. If biosolids subject to the cumulative loading limits in Part I.A.3. have been applied since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the biosolids since that date is known, the cumulative amount of each pollutant applied to the site shall be used to determine the additional amount of each pollutant that can be applied to the site in accordance with the cumulative loading limits listed in Part I.A.3.
 - c. If biosolids subject to the cumulative loading limits in Part I.A.3. have been applied since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is not known, an additional amount of each pollutant shall not be applied to the site.
 24. CPLR Biosolids Tracking - Once a land application site has received biosolids subject to the CPLRs listed in Part I.A.3., tracking of the cumulative amount of each pollutant shall continue and take into account pollutant inputs from all biosolids, PC and CPLR, applied onto the site.
 25. Recordkeeping for PC and CPLR Biosolids - For PC and CPLR biosolids, the permittee is required to retain the following information a) through g) for at least 5 years:

- a. The concentrations of each pollutant in Part I.A.2.;
- b. Which pathogen reduction requirements in Part I.A.2. are met;
- c. Which vector attraction reduction requirements in Part I.A.2. are met;
- d. A description of how the management practices specified in the approved SMP and/or this permit are met;
- e. A description of how the site restrictions specified in the approved SMP and/or this permit are met (if applicable);
- f. The date bulk biosolids are applied to each site; and
- g. The following certification statement:
"I certify under the penalty of law, that the information that will be used to determine compliance with the pathogen requirements in [permittee shall insert either 9 VAC 25-31-710.A or B], the vector attraction reduction requirements in [permittee shall insert one of the vector attraction reduction requirements in 9 VAC 25-31-720 B1 through B10], the management practices, and the site restrictions (if applicable) for each site on which bulk biosolids are applied was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

26. Additional Recordkeeping for CPLR Biosolids - For biosolids subject to the cumulative pollutant loading rate, the permittee is required to retain the following information a) through g) indefinitely:

- a. The location, by either street address or latitude and longitude, of each site on which biosolids are applied;
- b. The number of hectares in each site on which biosolids is applied;
- c. The date and time bulk biosolids are applied to each site;
- d. The cumulative amount of each pollutant (i.e. kilograms) listed in Part I.A.3. in the bulk biosolids applied to each site, including the amount of each pollutant applied since July 20, 1993;
- e. The amount of biosolids (i.e., tons) applied to each site;
- f. A description of how the requirements to obtain information regarding the cumulative pollutant loading rates and the cumulative amount for each pollutant are met; and
- g. The following certification statement:
"I certify under the penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in Part I.E.23. and Part I.E.26. for each site on which bulk biosolids are applied was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment."

27. Reporting Land Application of Biosolids Upon Attaining 90% of CPLR - When 90% or more of any of the cumulative pollutant loading rates in Part I.A.3. is reached at a site, the information in Part I.E.26. shall be reported to the DEQ-Southwest Regional Office on February 19th of each year for the previous calendar year's activity.

28. Class B Biosolids Reporting Requirements – Land Application

- a. Monitoring Report - The results of the biosolids monitoring specified in Part I.A.2. and Part I.A.3. shall be submitted either via hard copy or electronically to the DEQ-Southwest Regional Office with the monthly activity report (Part I.E.28.b.) not later than the 15th day of the month

after monitoring takes place. Supporting documentation, including laboratory chain of custody forms and certificates of analyses, shall be included with the report.

- b. Monthly Activity Report - The permittee shall submit, either via hard copy or electronically, a monthly activity report to the DEQ - Southwest Regional Office by the 15th day of the month, for land application activities that occurred in the previous calendar month.

The monthly activity report shall include the following information:

- (1) Name of Permittee, DEQ permit number and dates of activity;
 - (2) Name and certificate number of the certified land applicators with a signed statement attesting that they were onsite at the times of the reported applications and that those applications were in compliance with the permit;
 - (3) Identification of land application site, including the county where taxes are remitted and permitted site identification name, letters and numbers, as appropriate;
 - (4) The source of biosolids and approximate field area (reported to the nearest 0.1 acres) receiving those biosolids;
 - (5) The amount of biosolids applied in dry tons and the method and calculations used to determine the reported value. Dry ton value shall be reported to the nearest 0.01 dry tons;
 - (6) Dates and type of any interactions with local monitors and names of individuals involved in the interactions;
 - (7) Name of responsible representative of permittee and a statement signed and dated by that representative indicating that the information submitted has been verified by that representative as correctly reported in accordance with the Part II.K;
 - (8) Presentation of the calculation of the total fee;
 - (9) A summary list of the total amount of biosolids applied;
 - (10) Biosolids Loading - for each application of biosolids to an application site, the permittee shall submit in the monthly biosolids monitoring report, the concentration of PAN and P_2O_5 (as pounds per dry ton) in the biosolids and the amount of PAN and P_2O_5 (as pounds per acre) applied to the site from the biosolids.
- c. Land Application Fee -- The permittee shall remit to the DEQ a fee of \$7.50 per dry ton of biosolids applied in the Commonwealth of Virginia.
- (1) The permittee shall collect this fee from the facilities that generated the biosolids applied.
 - (2) The permittee shall submit by postal service an invoice to DEQ-Office of Receipts Control by the 15th day of the month (postmark) for the land application activities of the previous month. The invoice shall include presentation of the calculation of the total fee; a summary list of the total amount of biosolids applied; and the signature of the permit holder with the certification statement provided below, as required by Part I.E.28.b.(7):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

"Upon receipt of the report, DEQ will review the report and notify the permit holder of the fee that is due. An invoice bill will be sent to the Permittee indicating the amount due. Payment of the fee is to be made within 30 days from the date of the bill. The payment of the fee is not to be submitted prior to receiving a bill from DEQ. Failure to submit payment within 60 days of notification by DEQ of the fee due may result in the permit being revoked or approved sources being reclassified as unapproved.

- (3) Upon receipt of the bill from DEQ, the check or money order shall be payable to the "Treasurer of Virginia", and mailed with the invoice to:

Department of Environmental Quality
Receipts Control
P.O. Box 1104
Richmond, VA 23218

- d. Annual Report - The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ -Southwest Regional Office. Each report is for the previous calendar year's activity. If no biosolids were applied to the land during the reporting period, "no biosolids were applied" shall be reported. The report shall include at a minimum:

- (1) Biosolids Monitoring Reports as required by Part I.A.2. and Part I.A.3, certified and signed in accordance with Part II.K;
- (2) A summary of biosolids disposal contracts currently held as well as any other biosolids or sludges currently being handled;
- (3) A summary of approved biosolids storage facilities including the capacity at each facility which is dedicated for a particular biosolids. Provide the amount of remaining storage capacity;
- (4) A summary of land application sites completed in the last year including, by county, the source, dry tons, field designation, acres and the date of last application;
- (5) A summary of any partially completed land application sites including the date of last application; and
- (6) The total acreage of permitted land application sites available for use in the next calendar year.
- (7) The results of all soil monitoring performed in accordance with Part I.A.4.

- e. Records Retention - The permittee shall retain records of all monitoring information pertaining to biosolids and biosolids land application, including all calibration and maintenance records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application, unless otherwise specified in this permit. This period of retention may be extended by request of the Board at any time.

29. Class B Biosolids Storage Requirements – Land Application

- a. Storage Regulatory Basis - Biosolids shall be stored in accordance with all requirements adopted pursuant to §62.1-44.19:3 R of the Code of Virginia.
- b. Emergency Storage - The owner shall notify the DEQ - Southwest Regional Office upon implementation of any emergency storage. Emergency storage may be implemented due to unforeseen circumstances, including the delivery of sludge which has not been stabilized to biosolids standards. The biosolids in emergency storage shall be managed in accordance with the approved SMP and shall not result in water quality, public health or nuisance problems.

- c. Temporary Storage - The owner shall notify the DEQ-Southwest Regional Office upon implementation of any temporary storage. Temporary storage may be implemented due to unforeseen climatic factors that prevent land application of biosolids on a site on the same day that the biosolids has been offloaded at the site or is in transit to the site. Temporary storage is restricted as follows:
- (1) Biosolids stored at the site shall be land applied prior to additional offloading of biosolids at the same site;
 - (2) The owner shall be restricted to storing a daily maximum amount of 100 wet tons per operational site;
 - (3) The stored biosolids shall be land applied within 30 days from the initiation of storage or moved to a routine biosolids facility;
 - (4) Approval of plans for temporary storage will be considered as part of the overall SMP;
 - (5) Temporary storage shall not occur in areas prone to flooding at a 25-year or less frequency interval;
 - (6) A synthetic liner shall be required for placement under and over biosolids stored in this manner with one exception: where biosolids is stockpiled for less than seven days, a liner placed under the stored biosolids is not required. Surface water diversions and other BMPs should be utilized as appropriate; and
 - (7) Temporary storage shall not result in water quality, public health or nuisance problems.

F. Class A Biosolids Production – Heat Drying Facility

1. Authorization - This permit authorizes a biosolids drying facility owned and operated by the Coeburn-Norton-Wise Regional Wastewater Treatment Authority (CNW). The CNW facility uses a biosolids drying operation as identified in the approved O&M Manual.
2. Preliminary Engineering Report (PER) - Prior to obtaining a Certificate to Construct (CTC), the permittee is required to submit a PER to the DEQ-Southwest Regional Office for review. The PER shall be prepared in accordance with the *Sewage Collection and Treatment* regulation (9VAC25-790-940) and shall include a fully developed conceptual process design and layout of the drying facility; fully developed site location plan and a cost effective analysis for the project.
3. Operations and Maintenance (O&M) Manual Requirement - The term Operations and Maintenance (O&M) Manual as used in this permit refers to a document that incorporates the requirements of the three documents required by 9VAC25-32-310 et seq, which include the O&M Manual, the sludge management plan and the best management practices plan. The permittee shall conduct all biosolids use or disposal activities in accordance with the O&M Manual approved with the issuance of this permit. Any proposed changes in the biosolids use or disposal practices or procedures followed by the permittee shall be documented and submitted for Board approval 90 days prior to the effective date of the changes. Upon approval, the O&M Manual becomes an enforceable part of the permit.
 - a. Draft Operations and Maintenance (O & M) Manual- A draft O&M manual shall be submitted by the permittee to the DEQ-Southwest Regional Office for review and comment. This draft O&M manual is to be submitted with the PER prior to obtaining a CTC.
 - b. A final Operations and Maintenance (O&M) Manual shall be submitted to the DEQ-Southwest Regional Office for approval within 90 days of the issuance of the CTC. Upon approval, the O&M will become an enforceable part of the permit.

4. CTC and CTO Requirement - In accordance with *Sewage Collection and Treatment* regulation (9VAC25-790), the permittee shall obtain a Certificate to Construct (CTC) and a Certificate to Operate (CTO) from the Department of Environmental Quality prior to constructing/upgrading and operating the biosolids drying facility, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.
5. CTO Procedures - The permittee shall notify the Department upon significant completion of the biosolids drying facility. The Department may schedule an inspection of the facility prior to issuance of the CTO.
6. Finished Product - All finished products must meet Class A/EQ minimum standards.
 - a. Pathogen Reduction: Class A, Alternative 5 - Pathogen density in conjunction with a process to further reduce pathogens. 9 VAC 25-31-710.E.2, heat drying, requires that sewage sludge is dried by direct or indirect contact with hot gases to reduce the moisture content of the sewage sludge to 10.0% or lower. Either the temperature of the sewage sludge particles exceeds 80°C; or the wet bulb temperature of the gas in contact with the sewage sludge, as the sewage sludge leaves the dryer, exceeds 80°C.
 - b. Vector Attraction Reduction - The percent solids of the final product shall be equal to or greater than 90% based on moisture content and total solids prior to mixing with other materials.
 - c. Pathogens - In addition to testing required of this subsection, finished products will be tested for the presence of the following organisms using the methods indicated below:
 - (1) Bacteria Pathogens - Either the density of fecal coliform in the finished biosolids shall be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the finished biosolids shall be less than 3 MPN per 4 grams of total solids (dry weight basis) at the time the finished biosolids is prepared for sale or give away in a container for application to the land: and
 - (2) Other test methods, or facility operating standards may be used in lieu of the above pathogen testing requirements as approved by the department.
 - d. Minimum Frequency of Analysis

Amount of dried biosolids¹

(metric tons per 365 day period)

Less than 290

Equal to or greater than 290 but less than 1,500

Equal to or greater than 1,500 but less than 15,000

Equal to or greater than 15,000

Frequency

Once per year.

Once per quarter (four times per year).

Once per 60 days (six times per year).

Once per month (12 times per year).

¹Either the amount of finished biosolids applied to the land, prepared for sale, or give-away for application to the land (dry weight basis).

7. Distribution and Marketing of Final Product

- a. Authorization - This permit authorizes the distribution and marketing of the final product derived from the heat drying of biosolids, that has been prepared at the facility owned and operated by the Coeburn Norton Wise Regional Wastewater Treatment Authority. The product may be distributed and marketed in either bulk amounts or as a bagged product.

- b. Exceptional quality - Only exceptional quality biosolids produced from an approved sludge processing facility can be distributed and marketed. Approved sludge processing facilities are those facilities constructed and operated in compliance with required permits.

Only biosolids that meet the pollutant concentrations in Part I.A.5., Class A pathogen reduction and vector attraction reduction methods in Part I.F.6., or mixtures of exceptional quality biosolids with other materials such that the mixture achieves the Class A pathogen control standard, shall be sold or distributed under this permit. Distribution or marketing of Class A biosolids that have been mixed with inert materials may be approved on a case-by-case basis. Inert materials shall not contain pathogens or attract vectors.

- c. Registration with the Virginia Department of Agriculture and Consumer Services (VDACS) - Exceptional quality biosolids marketed as fertilizers or soil conditioners must be registered with the VDACS. Upon issuance of the CTO, and prior to any distribution of biosolids, the permittee shall acquire such registration. The VDACS registration shall be maintained for the duration of this permit.
- d. Biosolids Management - Exceptional quality biosolids may be distributed and marketed in either bulk amounts (unpacked greater than 15 dry tons) or as a bagged product.

Application of bulk use quantities of exceptional quality biosolids to home vegetable gardens shall not exceed an equivalent annual loading rate of approximately one pound dry weight of biosolids per square foot.

- e. Product Labeling - Information provided to users of marketed or distributed biosolids shall include the following:

- (1) The name and address of the preparer of the biosolids;
- (2) The nutrient content;
- (3) The acceptable land application rates;
- (4) The CCE value;
- (5) The pH of the final product;
- (6) A statement that application of the biosolids to the land is prohibited except in accordance with the instructions on the label or information sheet; and
- (7) That for any uses not specified the user should contact the distributor at a listed address or telecommunications number.

- f. DEQ reserves the right to prohibit the distribution of bulk use quantities of biosolids when it appears that such distribution is being accomplished in such a manner that fails to meet the permit requirements.

- 8. No Point Source Discharge - All pollutant management activities occurring at the biosolids drying facility under this permit shall maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than the 25-year, 24-hour storm. The operation of the facilities of the owner permitted herein shall not contravene the Water Quality Standards, as adopted and amended by the Board, or any provision of the Water Control Law.
- 9. Material Handling and Storage - Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in

such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

10. Closure Requirements - If the facility is permanently closed, the permittee shall submit to the DEQ-Southwest Regional Office a closure plan for the treatment works. The plan shall address liquid and sludge removal, odor control measures, structure and pipe removal, steps to prevent unauthorized access, fill materials, final grading and seeding. The plan should contain proposed dates for beginning and completing the work. The plan must be approved by the DEQ and the Virginia Department of Health prior to implementation.
11. Addition of Sources - For the addition of biosolids sources not identified in the Permit Application, the permittee shall submit the applicable forms and information as required in the VPDES Sewage Sludge Permit Application to DEQ's Southwest Regional Office for authorization. Land application of biosolids from new sources shall not commence until authorization is received from DEQ.
12. Recordkeeping for Class A Biosolids – The permittee shall maintain records on the biosolids drying facility operation, maintenance and laboratory testing.
 - a. Sampling - Records shall be maintained for all samples shall include but is not limited to the following:
 - (1) The date and time of sampling;
 - (2) The sampling methods used;
 - (3) The date analyses were performed;
 - (4) The identity of the individual obtaining each sample and the analysts; and
 - (5) The results of all required analyses and measurements.
 - b. The records shall include all data and calculations used and shall be available to the Department for inspections at reasonable times. All required records shall be kept for a minimum of five years.
 - c. A manifest system (received sources, wet tons, date, by date by source) shall be developed, implemented and maintained and be available for inspection during operations as part of the overall daily recordkeeping for the facility.
 - d. Distribution information - Distribution information shall be maintained by the permittee and provided by any recipient, whether distributor or private user, of bulk use quantities of marketed or distributed biosolids of more than 50 cubic yards within a 24 hour period. Copies of this information shall be made available upon request by the Department. These records should include but is not limited to the following:
 - (1) Date
 - (2) Name, address, and phone number of user
 - (3) Amount of exceptional quality biosolids obtained
 - (4) Location and property owner where biosolids are being used
 - (5) Size of area where biosolids are spread
 - (6) Proximity of site to closest river or water supply source
 - (7) Description of site uses.

If the recipient is not the end user of the biosolids, only the information listed in subdivisions (1) through (4) of this subsection shall be necessary.

- e. Records Retention - The permittee shall retain records of all monitoring information pertaining to the biosolids drying operation including all calibration and maintenance records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application, unless otherwise specified in this permit. This period of retention may be extended by request on the Board at any time.

13. Class A Biosolids Reporting Requirements – Heat Drying Facility

- a. Monitoring - The results of the monitoring specified in Part I.A.5. shall be submitted via hard copy (post mark) or electronically to the DEQ Southwest Regional Office and the DEQ Office of Land Application with the monthly activity report (Part I.F.13.b) not later than the 15th day of the month after monitoring takes place. Supporting documentation, including operator logs, laboratory chain of custody forms and certificates of analyses, shall be included with the report.
- b. Monthly Activity Report - The permittee shall submit either hard copy (post mark) or electronically, a monthly activity report to the DEQ Southwest Regional Office and DEQ Office of Land Application by the 15th day of the month, for land application activities that occurred in the previous calendar month.

The monthly activity report shall include but is not limited to the following information:

- (1) Name of Permittee, DEQ permit number and dates of activity
- (2) The source and amount of biosolids received at the site in Wet English Tons
- (3) The amount of final product in dry English tons and the method and calculations used to determine the reported value. Dry ton value shall be reported to the nearest 0.01 dry tons
- (4) Name of responsible representative of permittee and a statement signed and dated by that representative indicating that the information submitted has been verified by that representative as correctly reported in accordance with the Part II.K.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- c. Annual Report -The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ-Southwest Regional Office. Each report is for the previous calendar year's activity. The report shall include at minimum:
 - (1) Monitoring Reports as required by Part I.A.5., certified and signed in accordance with Part II.K.
 - (2) Total amount in dry tons of biosolids distributed in a bag or other container per year
 - (3) Total amount in dry tons of biosolids distributed in bulk
 - (4) Total amount in dry tons of biosolids received for use in the heat drying process
 - (5) A description of how pathogen reduction was met and the data demonstrating compliance with the selected alternative(s)

- (6) A description of how vector reduction was met and the data demonstrating compliance with the selected alternative(s)
- (7) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the Class A pathogen requirements in 40CFRPart 503.32 was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

G. Pretreatment Program

1. Within 180 days of the effective or modification date of this permit, the permittee shall submit to the DEQ Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted on the DEQ Discharger Survey Form, or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.
2. Should evaluation by the DEQ of results of the Industrial User survey conducted in accordance with Part I.G.1. above indicate that the permittee is not required to implement a pretreatment program, the requirements for program development described in Part I.G.4. below may be suspended by the DEQ.
3. If Categorical Industrial User(s) are identified, or if the permittee or DEQ determines that the industrial user(s) have potential to adversely affect the operation of the POTW or cause violation(s) of federal, state or local standards or requirements, the permittee shall develop and submit to the DEQ Regional Office within one year of written notification by DEQ a pretreatment program for approval. The program shall enable the permittee to control by permit the Significant Industrial Users* discharging wastewater to the treatment works.
4. The approvable pretreatment program submission shall at a minimum contain the following parts:
 - a. Legal authority
 - b. Program procedures
 - c. Funding and resources
 - d. Local limits evaluation, and local limits if needed
 - e. Enforcement response plan, and
 - f. List of Significant Industrial Users *.
5. Where the permittee is required to develop a pretreatment program, they shall submit to the DEQ Regional Office an annual report no later than January 31 of each year and must include:
 - a. An updated list of the Significant Industrial Users* noting all of the following:
 - (1) Facility address, phone and contact name
 - (2) Explanation of SIUs deleted from the previous years list
 - (3) Identify which IUs are subject to Categorical Standards and note which Standard (i.e. metal finishing)
 - (4) Specify which 40 CFR part(s) is/are applicable
 - (5) Indicate which IUs are subject to local standards that are more stringent than Categorical Pretreatment Standards

- (6) Indicate which IUs are subject only to local requirements
 - (7) Identify which IUs are subject to Categorical Pretreatment Standards that are subject to reduced reporting requirements under 9VAC25-31-840 E.3.
 - (8) Identify which IUs are non-significant Categorical Industrial Users
- b. A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.
 - c. A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW.
 - d. All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events.
 - e. A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months.
 - f. A summary of any changes to the submitted pretreatment program that has not been previously reported to the DEQ Regional Office.
 - g. A summary of the permits issued to Significant Industrial Users since the last annual report.
 - h. POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period.
 - i. Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ.
 - j. Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period. This is due no later than March 31 of each year.
 - k. Signature of an authorized representative.
6. The DEQ may require the POTW to institute changes to the legal authority regarding Significant Industrial User permit(s):
 - a. If the legal authority does not meet the requirements of the Clean Water Act, Water Control Law or State regulations
 - b. If problems such as interferences, pass-through, violations of water quality standards or sludge contamination develop or continue; and
 - c. If federal, state or local requirements change.
- * A significant industrial user is one that:
- Has an average flow of 25,000 gallons or more per workday of process** wastewater;
 - Contributes a process wastestream which makes up 5.0-percent or more of the average dry weather hydraulic or organic capacity of the POTW;

- Is subject to the categorical pretreatment standards; or
- Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

** Excludes sanitary, non-contact cooling water and boiler blowdown.

H. Whole Effluent Toxicity

1. Biological Monitoring:

- a. In accordance with the schedule in Part I.H.2. below, and commencing in August, 2012, the permittee shall conduct annual acute and chronic toxicity tests for the duration of the permit. The permittee should collect 24-hour flow-proportioned composite samples of final effluent from outfall 001. The acute multi-dilution NOAEC tests to use are:

48 Hour Static Acute test using *Ceriodaphnia dubia*

48 Hour Static Acute test using *Pimephales promelas*

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR converted to TU_a ($100/NOAEC$). The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable.

In lieu of conducting the 48 hour Static Acute test using *Pimephales promelas*, the permittee may report acute toxicity results for samples based upon the data generated during the first 48 hours of the chronic toxicity tests.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing $100/NOEC$ for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOEC's in the test report.

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- b. The test dilutions should be able to determine compliance with the following endpoints:

(1) For the existing 5.0 MGD facility:

(A) Acute NOAEC of 100% equivalent to a TU_a of 1.0

(B) Chronic NOEC of 55% equivalent to a TU_c of 1.81

(2) Upon issuance of a Certificate to Operate (CTO) for 6.5 MGD:

(A) Acute NOAEC of 100% equivalent to a TU_a of 1.0

(B) Chronic NOEC of 57% equivalent to a TU_c of 1.75

(3) Upon issuance of a Certificate to Operate (CTO) for 7.0 MGD:

(A) Acute NOAEC of 100% equivalent to a TU_a of 1.0

(B) Chronic NOEC of 58% equivalent to a TU_c of 1.72

- c. The test data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of Part I.H.1.a. may be discontinued.

If, after evaluating the data, it is determined that no limit is needed, the permittee shall continue chronic testing with both *Ceriodaphnia dubia* and *Pimephales promelas* of the outfall annually, as on the reporting schedule in Part I.H.2.

The permit may be modified or revoked and reissued to include specific limits in lieu of a wet limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

2. Reporting Schedule:

The permittee shall report the results on the DMR and supply two copies of the toxicity test reports specified in this Toxics Management Program in accordance with the following schedule:

<u>Period</u>	<u>Compliance Periods</u>	<u>DMR/Report Submission Dates</u>
Annual 1	By 08/31/2013	10/10/2013
Annual 2	By 08/31/2014	10/10/2014
Annual 3	By 08/31/2015	10/10/2015
Annual 4	By 08/31/2016	10/10/2016
Annual 5	By 08/31/2017	10/10/2017

**ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING**

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	880		G or C	1/5 YR
7440-38-2	Arsenic, dissolved	(3)	180		G or C	1/5 YR
7440-43-9	Cadmium, dissolved	(3)	1.6		G or C	1/5 YR
16065-83-1	Chromium III, dissolved ⁽⁸⁾	(3)	100		G or C	1/5 YR
18540-29-9	Chromium VI, dissolved ⁽⁸⁾	(3)	13		G or C	1/5 YR
7440-50-8	Copper, dissolved	(3)	12		G or C	1/5 YR
7439-92-1	Lead, dissolved	(3)	20		G or C	1/5 YR
7439-97-6	Mercury, dissolved	(3)	0.92		G or C	1/5 YR
7440-02-0	Nickel, dissolved	(3)	28		G or C	1/5 YR
7782-49-2	Selenium, Total Recoverable	(3)	6		G or C	1/5 YR
7440-22-4	Silver, dissolved	(3)	5.5		G or C	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)		G or C	1/5 YR
7440-66-6	Zinc, dissolved	(3)	160		G or C	1/5 YR
PESTICIDES/PCB'S						
309-00-2	Aldrin	608	0.05		G or C	1/5 YR
57-74-9	Chlordane	608	0.2		G or C	1/5 YR
2921-88-2	Chlorpyrifos (synonym = Dursban)	(4)	(5)		G or C	1/5 YR
72-54-8	DDD	608	0.1		G or C	1/5 YR
72-55-9	DDE	608	0.1		G or C	1/5 YR
50-29-3	DDT	608	0.1		G or C	1/5 YR
8065-48-3	Demeton	(4)	(5)		G or C	1/5 YR
333-41-5	Diazinon	(4)	(5)		G or C	1/5 YR
60-57-1	Dieldrin	608	0.1		G or C	1/5 YR
959-98-8	Alpha-Endosulfan	608	0.1		G or C	1/5 YR
33213-65-9	Beta-Endosulfan	608	0.1		G or C	1/5 YR
1031-07-8	Endosulfan Sulfate	608	0.1		G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
72-20-8	Endrin	608	0.1		G or C	1/5 YR
7421-93-4	Endrin Aldehyde	(4)	(5)		G or C	1/5 YR
86-50-0	Guthion	(4)	(5)		G or C	1/5 YR
76-44-8	Heptachlor	608	0.05		G or C	1/5 YR
1024-57-3	Heptachlor Epoxide	(4)	(5)		G or C	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)		G or C	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)		G or C	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	(5)		G or C	1/5 YR
143-50-0	Kepone	(9)	(5)		G or C	1/5 YR
121-75-5	Malathion	(4)	(5)		G or C	1/5 YR
72-43-5	Methoxychlor	(4)	(5)		G or C	1/5 YR
2385-85-5	Mirex	(4)	(5)		G or C	1/5 YR
56-38-2	Parathion	(4)	(5)		G or C	1/5 YR
11096-82-5	PCB 1260	608	1.0		G or C	1/5 YR
11097-69-1	PCB 1254	608	1.0		G or C	1/5 YR
12672-29-6	PCB 1248	608	1.0		G or C	1/5 YR
53469-21-9	PCB 1242	608	1.0		G or C	1/5 YR
11141-16-5	PCB 1232	608	1.0		G or C	1/5 YR
11104-28-2	PCB 1221	608	1.0		G or C	1/5 YR
12674-11-2	PCB 1016	608	1.0		G or C	1/5 YR
1336-36-3	PCB Total	608	7.0		G or C	1/5 YR
8001-35-2	Toxaphene	608	5.0		G or C	1/5 YR
BASE NEUTRAL EXTRACTABLES						
83-32-9	Acenaphthene	625	10.0		G or C	1/5 YR
120-12-7	Anthracene	625	10.0		G or C	1/5 YR
92-87-5	Benzidine	(4)	(5)		G or C	1/5 YR
56-55-3	Benzo (a) anthracene	625	10.0		G or C	1/5 YR
205-99-2	Benzo (b) fluoranthene	625	10.0		G or C	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	10.0		G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
50-32-8	Benzo (a) pyrene	625	10.0		G or C	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)		G or C	1/5 YR
108-60-1	Bis 2-Chloroisopropyl Ether	(4)	(5)		G or C	1/5 YR
117-81-7	Bis-2-ethylhexyl phthalate	625	10.0		G or C	1/5 YR
85-68-7	Butyl benzyl phthalate	625	10.0		G or C	1/5 YR
91-58-7	2-Chloronaphthalene	(4)	(5)		G or C	1/5 YR
218-01-9	Chrysene	625	10.0		G or C	1/5 YR
53-70-3	Dibenz(a,h)anthracene	625	20.0		G or C	1/5 YR
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	10.0		G or C	1/5 YR
95-50-1	1,2-Dichlorobenzene	624	10.0		G or C	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	10.0		G or C	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	10.0		G or C	1/5 YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)		G or C	1/5 YR
84-66-2	Diethyl phthalate	625	10.0		G or C	1/5 YR
131-11-3	Dimethyl phthalate	(4)	(5)		G or C	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	10.0		G or C	1/5 YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)		G or C	1/5 YR
206-44-0	Fluoranthene	625	10.0		G or C	1/5 YR
86-73-7	Fluorene	625	10.0		G or C	1/5 YR
118-74-1	Hexachlorobenzene	(4)	(5)		G or C	1/5 YR
87-68-3	Hexachlorobutadiene	(4)	(5)		G or C	1/5 YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)		G or C	1/5 YR
67-72-1	Hexachloroethane	(4)	(5)		G or C	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0		G or C	1/5 YR
78-59-1	Isophorone	625	10.0		G or C	1/5 YR
98-95-3	Nitrobenzene	625	10.0		G or C	1/5 YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)		G or C	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)		G or C	1/5 YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)		G or C	1/5 YR
129-00-0	Pyrene	625	10.0		G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
120-82-1	1,2,4-Trichlorobenzene	625	10.0		G or C	1/5 YR
VOLATILES						
107-02-8	Acrolein	(4)	(5)		G	1/5 YR
107-13-1	Acrylonitrile	(4)	(5)		G	1/5 YR
71-43-2	Benzene	624	10.0		G	1/5 YR
75-25-2	Bromoform	624	10.0		G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0		G	1/5 YR
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	50.0		G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0		G	1/5 YR
67-66-3	Chloroform	624	10.0		G	1/5 YR
75-09-2	Dichloromethane (synonym = methylene chloride)	624	20.0		G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0		G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0		G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0		G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)		G	1/5 YR
78-87-5	1,2-Dichloropropane	(4)	(5)		G	1/5 YR
542-75-6	1,3-Dichloropropene	(4)	(5)		G	1/5 YR
100-41-4	Ethylbenzene	624	10.0		G	1/5 YR
74-83-9	Methyl Bromide	(4)	(5)		G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)		G	1/5 YR
127-18-4	Tetrachloroethylene	624	10.0		G	1/5 YR
10-88-3	Toluene	624	10.0		G	1/5 YR
79-00-5	1,1,2-Trichloroethane	(4)	(5)		G	1/5 YR
79-01-6	Trichloroethylene	624	10.0		G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0		G	1/5 YR
ACID EXTRACTABLES ⁽⁶⁾						
95-57-8	2-Chlorophenol	625	10.0		G or C	1/5 YR
120-83-2	2,4 Dichlorophenol	625	10.0		G or C	1/5 YR
105-67-9	2,4 Dimethylphenol	625	10.0		G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
51-28-5	2,4-Dinitrophenol	(4)	(5)		G or C	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)		G or C	1/5 YR
25154-52-3	Nonylphenol	(4)	(5)		G or C	1/5 YR
87-86-5	Pentachlorophenol	625	50.0		G or C	1/5 YR
108-95-2	Phenol	625	10.0		G or C	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0		G or C	1/5 YR
MISCELLANEOUS						
776-41-7	Ammonia as NH3-N	350.1	200		C	1/5 YR
16887-00-6	Chlorides	(4)	(5)		C	1/5 YR
7782-50-5	Chlorine, Total Residual	(4)	100		G	1/5 YR
57-12-5	Cyanide, Free	(4)	10.0		G	1/5 YR
N/A	<i>E. coli</i> / <i>Enterococcus</i> (N/CML)	(4)	(5)		G	1/5 YR
7783-06-4	Hydrogen Sulfide	(4)	(5)		G or C	1/5 YR
60-10-5	Tributyltin ⁽⁷⁾	NBSR 85-3295	(5)		G or C	1/5 YR
471-34-1	Hardness (mg/L as CaCO ₃)	(4)	(5)		G or C	1/5 YR

Name of Principal Exec. Officer or Authorized Agent/Title

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

(2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour (PW - Revise as required to require same composite duration as BOD₅) composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

	<u>Metal</u>	<u>Analytical Method</u>	
	Antimony	1638; 1639	
	Arsenic	1632	
	Chromium ^(b)	1639	
	Cadmium	1637; 1638; 1639; 1640	
	Chromium VI	1639	
	Copper	1638; 1640	
(4)	Any	Lead 1637; 1638; 1640	approved
		Mercury 1631	method
		Nickel 1638; 1639; 1640	presented
	in	Selenium 1638; 1639	40 CFR
	Part	Silver 1638	136.
		Zinc 1638; 1639	

- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.

- (6) Testing for phenols requires continuous extraction.

- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].

- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].

- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
4. Samples taken as required by this permit shall be analyzed in accordance with 1 VAV 30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

B. Records.

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality
Southwest Regional Office
355-A Deadmore Street
Abingdon, VA 24210

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II.F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II.F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II.I. 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II.I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II.I.1 or 2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II. I.2.

NOTE: The immediate (within 24 hours) reports required in Parts II. G, H and I may be made to the Department's Regional Office at (276) 676-4800 (voice) or (276) 676-4899 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Applications. All permit applications shall be signed as follows:

- a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
 3. Changes to authorization. If an authorization under Part II.K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
 4. Certification. Any person signing a document under Parts II.K.1 or 2. shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with

certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U.), and "upset" (Part II.V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges.

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall

be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2 and U.3.

2. Notice

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

- a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.U.2.
- b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2., a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1., this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;

- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.